of the 'Common Blue' of the plains of India; the white rump alone would readily distinguish it from the latter.

Note on the Green Pigeons of Ceylon.

The *Columba pompadoura*, Gmelin, founded on pls. 19 and 20 of Brown's 'Illustrations of Zoology' (1776), has long been sought to be verified; and at length, it would appear, successfully by the Prince of Canino, in a small species, as originally described, of the size of *C. olax*, Temminck*. Consequently, the *Treron Malabarica* var. *pompadoura* of Mr. Layard's catalogue is a distinct bird, which may bear the specific name *flavogularis*, nobis. It is very like *Tr. Malabarica*, Jerdon, being of the same size as that species, with an equal development of the maroon colour upon the mantle of the male; but is readily distinguished by its yellowish-green forehead, pure yellow throat, and by having no buff patch on the breast of the male; it is also further remarkable, that whilst the male of *Tr. Malabarica* has the usual deep cinnamon-coloured lower tail-coverts, that of *Tr. flavogularis* has them green with broad whitish tips, as in the female, and as in both sexes of *Tr. chloroptera* of the Nicobars. *Tr. pompadoura* is a much smaller species, with the quantity of maroon colour on the mantle of the male greatly reduced, and with cinnamon-coloured lower tail-coverts, as usual in the males of this genus.

Following the Prince of Canino's classification, the following species of *Treroninæ* inhabit the island:—

1. *Crocopus chlorigaster* (Blyth).
2. *Osmotreron bicincta* (Jerdon).
3. —— *flavogularis* (Blyth).
4. —— *pompadoura* (Gmelin).

The first and second are common to Ceylon and the mainland of India, and the third and fourth peculiar to the island, so far as is known at present.—E. B.

L.—*A Description of two new Cryptogams*†.

By Mr. H. O. Stephens.

[With a Plate.]

The curious production about to be described I detected on calcined bones of oxen, part of the cargo of a vessel laden with

* Comptes Rendus, xxxix. p. 875.

† Communicated by the Author; having been read at a Meeting of the Bristol Microscopical Society, Sept. 16, 1857.

hides and bones from South America. It appeared to pervade all the bones, and its red colour immediately attracted my attention.

Almost every fragment of bone was dotted with patches of various sizes, of a cinnabar- or orange-red colour.

When moistened, these became slightly turgid or elevated, and rugose or papillate on the superior surface. Under a lens of good power (a $\frac{1}{5}$th was used), they are found to consist of very numerous quadrangular cells, a little rounded at the angles, united in fours, and these, again, grouped four together. They are very minute, varying in magnitude from ·0002 to ·0003 linear.

In a growing state I think they would be found enveloped in mucilage, traces of which are even now discernible.

I am inclined to suppose, that in the perfect condition of the plant, the quaternate-celled bodies are arranged in a linear series imbedded in the mucus of the pseudo-frond. In some of the heaps I am pretty certain that traces of this structure were observed, but too obscurely defined to admit of delineation.

Mr. Berkeley has pointed out to me their resemblance to *Sarcina*. In the form and quaternary arrangement of the cells they are indeed very like the frustules of *S. Ventriculi*; but these measure about ·004 linear, and contain greenish-brown endochrome, of which there is no trace in our plant.

The cells are turned olive-brown by sulpho-iodine. Both Mr. Berkeley and myself have failed in propagating this plant.

The affinities appear to be with Palmellæ, and the alliance with *Sarcina* very close,—I believe the nearest ally to that curious Alga yet known. Mixed with the bone Algoid are globose bodies of much greater diameter than the four-celled Sarcinoid bodies, accompanied by branched threads, which, on first examination, I thought an integral part of the Alga. More careful observations have, however, convinced me they are distinct, and belong to a filamentous Fungus.

The structure of this Fungus is highly curious: it seems to emerge from the Alga in circular or radiating white spots, very minute, but of various sizes. These are made up of branched threads, bearing on their extremities, or on lateral branches, round cells or spores. A vast number of these spore-like cells are detached and free amongst the threads, the threads being sparingly produced, or at least not abundantly, when compared with the profusion of the spores.

It is evident the globose cells must be formed in rapid succession from the points of the threads; the process of formation can, indeed, be partially seen; for I observed the extremities of some of the threads to be terminated by a thickened process,—

evidently the spore-like, globose cell in its nascent state, or in progress of evolution.

Bristol, Dighton Street, Oct. 3, 1857.

Note.—Mr. Berkeley writes me:—"I believe in the end both it and the *Sarcina* of the stomach will prove the *incunabula* of Moulds." I scarcely venture to dissent from such an authority, yet there is as great difficulty *à priori* in thinking *Sarcina* to be an Alga, altered in development and its autonomous state masked by growing in an unusual or unnatural habitat, than that a similar condition affecting the growth of a mould should cause it to assume the character of *Sarcina*. Mr. Berkeley, comparing the bone *Sarcina* with his mounted specimens of *S. Ventriculi*, makes both pretty nearly correspond in size. Specimens, however, of *S. Ventriculi* in the collection of Mr. Stoddart of this city, to whom I am indebted for the measurements of the bone-plant, are fully four times the size of the latter. It appears, then, that *S. Ventriculi* varies very greatly in size; yet Mr. Stoddart, for an entire year, made careful *daily* measurements of the granules of *S. Ventriculi* from the ejectments of a patient, and found them invariably of the same size.

As the real nature and affinities of the genus *Sarcina* are as yet doubtful, the two known species may be provisionally thus characterized:—

S. Ventriculi (Goodsir). Granulis opacis, fusco-olivaceis.
Habitat in ventriculo hominis præsertim.

S. ossium (mihi). Granulis pellucidis.
Habitat in ossibus bovinis ustis ex Brasilia.

EXPLANATION OF PLATE XII.

a, a, a. Portions of bone with Cryptogams.
b, b. Cells of *Sarcina ossium*, more or less magnified.
c, c. Gelatinous matter (of frond?) and granules or cells of *Sarcina ossium*, treated with sulpho-iodine.
d. Alga, with filamentous Fungus magnified.
e, e, e. Threads and spore-like cells of ditto.

BIBLIOGRAPHICAL NOTICES.

A Manual Flora of Madeira and the adjacent Islands of Porto Santo and the Dezertas. By R. T. Lowe, M.A. Part I. Thalamifloræ. 12mo. London, Van Voorst, 1857.

The residence of so eminent a naturalist as Mr. Lowe in Madeira during twenty-six years has afforded ample time and opportunity for the acquisition of an accurate knowledge of its vegetation; and botanists have long looked to him for a good Flora of the island. He was well known to be devoting his leisure time, since his return to England, to the preparation of such a work. Unfortunately a bad state of health has again rendered a temporary removal to a warmer climate necessary. He has therefore published so much of this work as could be prepared for the press and printed before his departure. An examination of this portion of the work, extending to 106 pages, renders us only the more desirous that he may soon be enabled to return home and complete the remainder of the book. In this part we are given short, but sufficiently full characters of all